

Title (en)

Laser processing robot system with a scanning head and a rapid movable support mechanism ; Method for controlling the same

Title (de)

Laserbearbeitung Robotersystem mit einem Rasterkopf und einer schnell bewegbaren Trägervorrichtung ; Verfahren zum Kontrollieren eines solchen Systems

Title (fr)

Système robotisé d'usinage laser avec une tête de balayage laser et un mécanisme de support à déplacement rapide ; Méthode de contrôle d'un tel système

Publication

EP 1661657 A1 20060531 (EN)

Application

EP 05025885 A 20051128

Priority

JP 2004345896 A 20041130

Abstract (en)

A laser processing robot system including a manipulator (12), a laser processing tool (14) attached to the manipulator (12), and a control unit (16) for controlling operations of the manipulator (12) and the laser processing tool (14). The laser processing tool (14) includes a laser scan head (18) with a movable mirror incorporated therein, and a movable support mechanism (22) movably supporting the laser scan head (18). The control unit (16) includes a rapid-traverse operation controlling section (24) for controlling an operation of the movable support mechanism (22) to make the laser scan head (18) perform a rapid-traverse operation during a non-processing period when the laser scan head (18) does not emit a laser beam. The rapid-traverse operation controlling section (24) can control an operation of at least one of the manipulator (12) and the movable mirror, in addition to an operation control of the movable support mechanism (22), during the non-processing period.

IPC 8 full level

B23K 26/00 (2014.01); **B23K 26/10** (2006.01); **B23K 26/08** (2014.01); **B23K 37/02** (2006.01); **B23Q 1/01** (2006.01); **B25J 9/10** (2006.01); **B25J 9/16** (2006.01)

CPC (source: EP US)

B23K 26/08 (2013.01 - EP US); **B23K 26/0884** (2013.01 - EP US); **B23K 37/0235** (2013.01 - EP US)

Citation (search report)

- [XA] EP 0870571 A2 19981014 - HONDA MOTOR CO LTD [JP]
- [A] US 2004111185 A1 20040610 - GMEINER PETER [DE]
- [A] US 5298717 A 19940329 - DEROSSETT JR THOMAS A [US]
- [A] DE 3627560 A1 19880218 - AUDI AG [DE]
- [A] US 2004094728 A1 20040520 - HERZOG FRANK [DE], et al

Cited by

EP2221132A4; EP1700667A1; EP3020518A4; US10101724B2; EP2221132B1

Designated contracting state (EPC)

DE

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EP 1661657 A1 20060531; **EP 1661657 B1 20080716**; CN 100464929 C 20090304; CN 1781647 A 20060607; DE 602005008168 D1 20080828; JP 2006150418 A 20060615; JP 4220958 B2 20090204; US 2006113392 A1 20060601

DOCDB simple family (application)

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